

**BOBBY JINDAL**  
GOVERNOR



**HAROLD LEGGETT, PH.D.**  
SECRETARY

## State of Louisiana

### DEPARTMENT OF ENVIRONMENTAL QUALITY ENVIRONMENTAL SERVICES

Certified Mail No.

Activity No.: PER20070005  
Agency Interest No. 5565

Mr. Larry G. Bayer  
Director  
Williams Olefins, LLC  
PO Box 470  
Geismar, LA 70734

RE: Part 70 Operating Permit Renewal and modification, Williams Olefins LLC - Geismar Ethylene Plant , Williams Olefins LLC, Geismar, Ascension Parish, Louisiana

Dear Mr. Bayer :

This is to inform you that the permit renewal and modification for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the \_\_\_\_\_ of \_\_\_\_\_, 2013, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

Permit No.: 0180-00029-V8

Sincerely,

Cheryl Sonnier Nolan  
Assistant Secretary  
CSN: pgb  
c: EPA Region VI

**PUBLIC NOTICE**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)**  
**WILLIAMS OLEFINS, LLC, GEISMAR ETHYLENE PLANT**  
**PROPOSED PART 70 AIR OPERATING PERMIT RENEWAL AND MODIFICATION**

The LDEQ, Office of Environmental Services, is accepting written comments on a proposed Part 70 air operating permit renewal and modification for Williams Olefins, LLC. P. O. Box 470, Geismar, LA 70734, for the Geismar Ethylene Plant. The facility is located at 5205 Highway 3115 approximately two miles west of Geismar on Louisiana Highway 30, in Ascension Parish.

Williams Olefins produces ethylene and other hydrocarbon products by thermal reaction of ethane and propane feedstock in cracking furnaces. Williams Olefins, LLC, proposes to revise the updated speciation of TAP compounds in the fugitive emissions, revision of CO emissions from the plant flare based on the most recent AP-42 factor and re-estimation of the Storage Tank VOC emissions based on the latest EPA software. Three additional sources have been added to the Insignificant Activities List. The Geismar Ethylene Plant operates under Permit No. 0180-00029-V7 issued January 11, 2006.

Estimated emissions from this facility in tons per year are as follows:

Pollutant	Before	After	Change
PM <sub>10</sub>	146.36	146.36	-
SO <sub>2</sub>	157.44	157.44	-
NO <sub>x</sub>	928.51	928.51	-
CO	374.05	459.65	+85.60
VOC	274.63	274.62	- 0.01

A technical review of the working draft of the proposed permit was submitted to the facility representative and the LDEQ Surveillance Division. Any remarks received during the technical review will be addressed in the "Worksheet for Technical Review of Working Draft of Proposed Permit". All remarks received by LDEQ are included in the record that is available for public review.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Thursday, July 31, 2008.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The application, proposed Part 70 air operating permit renewal and modification, statement of basis and public notice are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5<sup>th</sup> Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at [www.deq.louisiana.gov](http://www.deq.louisiana.gov).**

An additional copy may be reviewed at the Ascension Parish Library, Gonzales Branch, 708 S. Irma Blvd., Gonzales, LA and the Iberville Parish Library, East Iberville Branch, 5715 Monticello Street, St. Gabriel, LA.

Inquiries or requests for additional information regarding this permit action should be directed to P. G. Banerjee, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-0931.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at [deqmailistrequest@la.gov](mailto:deqmailistrequest@la.gov) or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

**Permit public notices including electronic access to the proposed permit and statement of basis** can be viewed at the LDEQ permits public notice webpage at [www.deq.louisiana.gov/apps/pubNotice/default.asp](http://www.deq.louisiana.gov/apps/pubNotice/default.asp) and general information related to the public participation in permitting activities can be viewed at [www.deq.louisiana.gov/portal/tabid/2198/Default.aspx](http://www.deq.louisiana.gov/portal/tabid/2198/Default.aspx).

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at [http://www.doa.louisiana.gov/oes/listservpage/ldeq\\_pn\\_listserv.htm](http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm).

**All correspondence should specify AI Number 5565, Permit Number 0180-00029-V8, and Activity Number PER20070005**

**Scheduled Publication Date: Advocate and Post South on June 26 and Gonzales Weekly Citizen on June 27, 2008**

**Williams Olefins LLC - Geismar Ethylene Plant**  
**Agency Interest No.: 5565**  
**Williams Olefins LLC**  
**Geismar, Ascension Parish, Louisiana**

**I. Background**

Williams Olefins LLC, Williams Olefins LLC - Geismar Ethylene Plant, an existing ethylene production facility that began operation in 1968. The Williams Olefins LLC - Geismar Ethylene Plant currently operates under Permit No. 0180-00029-V7, issued January 11, 2006.

This is the Part 70 operating permit renewal and minor modification for the facility.

**II. Origin**

A permit application and Emission Inventory Questionnaire were submitted by Williams Olefins LLC on August 10, 2007 requesting a Part 70 operating permit renewal. Additional information dated November 1, and December 18, 2007 were also received.

**III. Description**

Williams Olefins produces ethylene and other hydrocarbon products by the thermal reaction of ethane and propane feed stock in cracking furnaces. Effluent gas from the furnaces is processed through a continuous, integrated equipment train to refine and fractionate the mixed hydrocarbon stream into final products. Fuel used in all heaters and boilers is a combination of process off gas and pipeline natural gas.

In this permit modification, Williams Olefins LLC requests to include the following changes:

- Reconcile and revise VOC fugitive emissions based on updated process stream composition date.
- Revise CO emissions from the flare system (EQT 11) based on an AP-42 emission factor.
- Re-estimate the emissions of VOL storage tanks (EQT29, EQT33 and EQT38) based on the most recent EPA software program.
- Add three insignificant activities [Dyer Regeneration Heater(BA-301), Admin Building Boiler (N/A), and Converter Regeneration Heater (BA-401)]

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM <sub>10</sub>	146.36	146.36	-
SO <sub>2</sub>	157.44	157.44	-
NO <sub>X</sub>	928.51	928.51	-
CO	374.05	459.65	+85.60
VOC *	274.63	274.62	- 0.01

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**VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

Pollutant	Emission Rate
Benzene	7.63
1,3-Butadiene	5.20
Ethylbenzene	0.18
Methanol	1.42
Naphthalene	0.43
Styrene	0.96
Toluene	1.52
Xylene	0.26
Total	17.60

**IV. Type of Review**

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). Compliance Assurance Monitoring (CAM) and Prevention of Significant Deterioration (PSD) do not apply.

This facility is a minor source of toxic air pollutants (TAPs), but is subject to LAC 33:III. 5105.A. 1, 3, 4, and 5113 as required by LAC 33:III.5101.B.

**V. Credible Evidence**

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

**Williams Olefins LLC - Geismar Ethylene Plant**  
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## **VI. Public Notice**

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on <date>, 2008; and in The Gonzales Weekly Citizen, Gonzales on <date>, 2008. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on <date>. The draft permit was also submitted to US EPA Region VI on <date>. All comments will be considered prior to the final permit decision.

## **VII. Effects on Ambient Air**

Dispersion Model(s) Used: Emissions were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. The proposed project did not require the applicant to model emissions.

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})

## **VIII. General Condition XVII Activities**

Work Activity	Schedule	PM <sub>10</sub>	Emission Rates - tons			
			SO <sub>2</sub>	NO <sub>X</sub>	CO	VOC
N/A						

**Williams Olefins LLC - Geismar Ethylene Plant**  
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**IX. Insignificant Activities**

ID No.:	Description	Citation
31	7.6 MMBTU/hr Dryer Regeneration Heater 301	LAC 33:III.501.B.5.A.1.
32	0.9 MMBTU/hr Converter Regeneration Heater 401	LAC 33:III.501.B.5.A.5.
-	1.8 MMBTU/hr Admin Building Boiler	LAC 33:III.501.B.5.A.1.
64	2600 gal Propanol Storage Tank	LAC 33:III.501.B.5.A3.
86	Propylene Tank Car Loading	LAC 33:III.501.B.5.D.
-	≤ 500 gal Seven Diesel Fuel Storage Tanks	LAC 33:III.501.B.5.A.3.
-	25000 gallons Injection Oil Storage – Railcar	LAC 33:III.501.B.5.D.
-	Diesel Fuel Delivery Truck	LAC 33:III.501.B.5.A.3.
-	Laboratory Equipment/Vents	LAC 33:III.501.B.5.A.6.
-	Process Stream Analyzer Vents	LAC 33:III.501.B.5.A.9.
-	500 gal Inhibitor Storage Tank	LAC 33:III.501.B.5.A.3.
-	Temporary Cooling Tower	LAC 33:III.501.B.5.A.12.

**Williams Olefins LLC - Geismar Ethylene Plant**  
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**Specific conditions**

Permittee shall comply with a streamlined equipment leaks monitoring program. Compliance with the streamlined program in accordance with this specific condition shall serve to comply with each of the fugitive emission monitoring programs being streamlined, as indicated in the following table. Noncompliance with the streamlined program in accordance with this specific condition may subject the permittee to enforcement action for one or more of the fugitive emissions program being streamlined.

- a. Permittee shall apply the streamlined program to the combined universe of components subject to any of the programs being streamlined. Any component type which does not require periodic monitoring under the overall most stringent program (LAC 33:III.2122) shall be monitored as required by the most stringent requirements of any other program being streamlined and will not be exempted. The streamlined program will include any exemptions based on size of component available in any of the programs being streamlined.
- b. Permittee shall use leak definitions and monitoring frequency based on the overall most stringent program. Percent leaker performance shall be calculated using the provisions of the overall most stringent program. Annual monitoring shall be defined as once every four quarters.
- c. Permittee shall comply with recordkeeping and reporting requirements of the overall most stringent program. Semiannual reports shall be submitted on September 30 and March 31, to cover the periods January 1 through June 30 and July 1 through December 31, respectively. The semiannual reports shall include any monitoring performed within the reporting period.

Unit or Plant Site	Programs Being Streamlined	Stream Applicability	Overall Most Stringent Program
Geismar Ethylene Plant	NESHAP Subpart J and Subpart V NSPS Subpart VV LAC 33:III.2122	10% VOHAP  10% VOC 10% VOC	LAC 33:III.2122

**Williams Olefins LLC - Geismar Ethylene Plant**  
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**Geismar, Ascension Parish, Louisiana**

**X. Table 1. Applicable Louisiana and Federal Air Quality Requirements**

<b>ID No.</b>	<b>Description</b>	<b>LAC 33:III Chapter</b>																	
		<b>5▲</b>	<b>509</b>	<b>9</b>	<b>11</b>	<b>13</b>	<b>15</b>	<b>2103</b>	<b>2107</b>	<b>2111</b>	<b>2113</b>	<b>2115</b>	<b>2122</b>	<b>2153</b>	<b>22</b>	<b>29*</b>	<b>51*</b>	<b>53*</b>	<b>56</b>
UNF0001	Plant Wide			1												1	1	1	1
ARE0002	63-Converter Regeneration Vent														2				
EQT 0004	1-Olefins Cracking Heater 100																		1
EQT0005	3-Olefins Cracking Heater 99																		1
EQT0006	4-Olefins Utility Boiler D																		1
EQT0007	5-Olefins Cracking Heater 98																		1
EQT0008	6-Olefins Cracking Heater 97																		1
EQT0009	8-Olefins Utility Boiler E																		1
EQT0010	33A-Olefins Cracking Heater 101																		1
EQT0011	20-Olefins Plant Flare																		3
EQT0012	33B-Olefins Cracking Heater 102																		1
EQT0013	34A-Olefins Cracking Heater 103																		1
EQT0014	34B- Olefins Cracking Heater 104																		1
EQT0015	35A-Olefins Cracking Heater 105																		1
EQT0016	35B-Olefins Cracking Heater 106																		1
EQT0017	36A-Olefins Cracking Heater 107																		1

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<b>ID No.</b>	<b>Description</b>	<b>LAC 33.III.Chapter</b>																	
		<b>5▲</b>	<b>509</b>	<b>9</b>	<b>11</b>	<b>13</b>	<b>15</b>	<b>2103</b>	<b>2107</b>	<b>2111</b>	<b>2113</b>	<b>2115</b>	<b>2122</b>	<b>2153</b>	<b>22</b>	<b>29*</b>	<b>51*</b>	<b>53*</b>	<b>56</b>
EQT0018	36B-Olefins Cracking Heater 108				1	1	3									1			
EQT0019	41-Olefins Cracking Heater 109					1	1	3								1			
EQT0021	45A-Olefins Utility Boiler A					1	1	3								1			
EQT0023	23-Olefins Utility Boiler B					1	1	3								1			
EQT0025	60-Stormwater Lift Station								2							2			
EQT0026	61-Firewater Pump # 3					1		3								3			
EQT0027	62-Firewater Pump # 5					1		3								3			
EQT0028	66-Methanol Storage Tank							1											
EQT0029	67-DAC Storage Tank (FB-802B)							1											
EQT0030	68-Firewater Pump #6					1		3								3			
EQT0031	69-Firewater Pump # 7					1		3								3			
EQT0032	70-Cooling Tower																		
EQT0033	80-DAC Storage Tank (FB-802A)							1											
EQT0034	91-Emergency Generator Engine					1		3								3			
EQT0035	93-Emergency Generator Engine					1		3								3			
EQT0036	94-Emergency Generator Engine					1		3								3			
EQT0037	96-Excess Effluent holding Tank (FB-812A)															2			

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ID No.	Description	LAC 33:III,Chapter																	
		5▲	509	9	11	13	15	2103	2107	2111	2113	2115	2122	2153	22	29*	51*	53*	56
EQT0038	97-Wastewater/DAC Storage Tank (FB-812B)							1								2			
EQT0039	99-Biological Treatment Unit														2				
FUG0001	2-Olefins Plant Fugitive Emissions														1				

\* The regulations indicated above are State Only regulations.

▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

**KEY TO MATRIX**

- 1 - The regulations have applicable requirements that apply to this particular emission source.  
 -The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

**Williams Olefins LLC - Geismar Ethylene Plant**  
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**X. Table 1. Applicable Louisiana and Federal Air Quality Requirements**

ID No.	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR PARTS						
		A	Db	Kb	VV	NNN	RRR	III	A	J	M	V	FF	Q	XX	YY	ZZZZ	52	64	68	82					
UNF0001	Plant Wide																									
ARE0002	63-Converter Regeneration Vent																									
EQT 0004	1-Olefins Cracking Heater 100																									
EQT0005	3-Olefins Cracking Heater 99																									
EQT0006	4-Olefins Utility Boiler D																									
EQT0007	5-Olefins Cracking Heater 98																									
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EQT0011	20-Olefins Plant Flare																									
EQT0012	33B-Olefins Cracking Heater 102																									
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EQT0018	36B-Olefins Cracking Heater 108							3																			
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EQT0027	62-Firewater Pump # 5								3													3					
EQT0028	66-Methanol Storage Tank							3																			
EQT0029	67-DAC Storage Tank (FB-802B)					1																					
EQT0030	68-Firewater Pump #6								3													3					
EQT0031	69-Firewater Pump # 7								3													3					
EQT0032	70-Cooling Tower																	3									
EQT0033	80-DAC Storage Tank (FB-802A)							3																			
EQT0034	91-Emergency Generator Engine														3							3					
EQT0035	93-Emergency Generator Engine																					3					
EQT0036	94-Emergency Generator Engine																	3				3					

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EQT0037	96-Excess Effluent holding Tank (FB-812A)																								
EQT0038	97-Wastewater/DAC Storage Tank (FB-812B)																								
EQT0039	99-Biological Treatment Unit																								
FUG0001	2-Olefins Plant Fugitive Emissions																	1	1	1					

**KEY TO MATRIX**

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**Williams Olefins LLC - Geismar Ethylene Plant**  
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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

ID No.	Requirement	Notes
EQT0004, EQT0005, EQT 0010, and EQT0012 through EQT0019 Cracking Heaters	Emission Standards for Sulfur Dioxide, LAC 33:III. Chapter 15  Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes 40 CFR 60-Subpart RRR	Does Not Apply per LAC 33:III.1502.A3 $\text{SO}_2 < 5 \text{ TPY}$  Does Not Apply. No modification of reactor processes after June 29, 1990.
EQT 0006 & EQT0009 Boilers	Emission Standards for Sulfur Dioxide, LAC 33:III. Chapter 15	Does Not Apply per LAC 33:III.1502.A3 $\text{SO}_2 < 5 \text{ TPY}$
EQT0007 & EQT0008 Cracking Heaters	Emission Standards for Sulfur Dioxide, LAC 33:III. Chapter 15  Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes 40 CFR 60-Subpart RRR	Does Not Apply per LAC 33:III.1502.A3 $\text{SO}_2 < 5 \text{ TPY}.$  Does Not Apply: There are no process vent streams from these reactor processes.
EQT0011 Olefins Plant Flare	Emission Standards for Sulfur Dioxide, LAC 33:III. Chapter 15  Control of Emissions of Nitrogen Oxides LAC 33:III.2201	Does Not Apply per LAC 33:III.1502.A3 $\text{SO}_2 < 250 \text{ TPY}.$  Exempt per LAC 33:III.2201.C.7

**Williams Olefins LLC - Geismar Ethylene Plant**  
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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

ID No.	Requirement	Notes
EQT0021 and EQT0023 Boilers	Emission Standards for Sulfur Dioxide, LAC 33:III. Chapter 15  NSPS Subpart Db for steam boilers, 40 CFR 60	Does Not Apply per LAC 33:III.1502.A.3 $\text{SO}_2 < 5 \text{ TPY}$ .  Does Not Apply. The Steam Generating Units have no modification after June 23, 1984.
EQT0025, EQT0037 and EQT0039 Stormwater Lift Station, Wastewater Tanks	Control of VOC from wastewater, LAC 33:III.2153  LAC 33:III.2103 and NSPS Subpart Kb for VOC storage tanks	EXEMPT: Because Wastewater contains $< 1000 \text{ mg/L}$ of VOC  Does Not Apply: The tanks do not store VOC
EQT0026, ET0027, EQT0030, EQT0031, EQT0034, EQT0035, and EQT0036 Firewater Pump & Emergency Generator Engines	Emission Standards for Sulfur Dioxide, LAC 33:III. Chapter 15  Control of Emissions of Nitrogen Oxides LAC 33:III.2201  NSPS Subpart III for CI-IC Engines, 40 CFR 60  NESHAP 40 CFR 63, Subpart ZZZZ	Does Not Apply per LAC 33:III.1502.A.3 $\text{SO}_2 < 5 \text{ TPY}$ .  Exempt per LAC 33:III.2201.C.14  Does Not Apply: No modification after 2005  Does Not Apply: Existing CI-IC Engines located at an area source of hazardous air pollutants and constructed before June 12, 2006.

**Williams Olefins LLC - Geismar Ethylene Plant**  
**Agency Interest No.: 5565**  
**Williams Olefins LLC**  
**Geismar, Ascension Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

ID No.	Requirement	Notes
ARE0002 Converter Regenerator Vent	Waste Gas Disposal LAC 33:III.2115	Exempt per 2115.H.1.d
EQT0028 Methanol Tank	NSPS Subpart Kb for storage tanks 40 CFR 60	Does Not Apply, Volume < 10,500 gallons
EQT0032 Cooling Tower	NESHAP 40 CFR 63, Subpart Q	Does Not Apply. Tower not located at a major source of hazardous air pollutants and Chromium based chemicals are not utilized.
EQT0033, DAC Storage Tank	NSPS Subpart Kb for storage tanks 40 CFR 60	Does Not Apply: No modification of the tanks after 1984.
UNF0001 Plant Wide	Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations 40 CFR 60-Subpart NNN.	Does Not Apply: Because there are no atmospheric process vents from new or modified distillation operations.
	National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations. 40 CFR 63 Subpart XX.	Does Not Apply: Because the facility is not a major source of hazardous air pollutants.

Williams Olefins LLC - Geismar Ethylene Plant  
 Agency Interest No.: 5565  
 Williams Olefins LLC  
 Geismar, Ascension Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No.	Requirement	Notes
UNFO001 Plant Wide	National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards.  40 CFR 63. Subpart YY.	Does Not Apply: Because the facility is not a major source of hazardous air pollutants..

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

## **40 CFR PART 70 GENERAL CONDITIONS**

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]

## 40 CFR PART 70 GENERAL CONDITIONS

H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:

1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and
4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]

I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.  
[Reference 40 CFR 70.6(a)(3)(ii)(B)]

J. Records of required monitoring shall include the following:

1. the date, place as defined in the permit, and time of sampling or measurements;
  2. the date(s) analyses were performed;
  3. the company or entity that performed the analyses;
  4. the analytical techniques or methods used;
  5. the results of such analyses; and
  6. the operating conditions as existing at the time of sampling or measurement.
- [Reference 40 CFR 70.6(a)(3)(ii)(A)]

K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]

L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

## 40 CFR PART 70 GENERAL CONDITIONS

- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]
- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
  - 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
  - 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
  - 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
  - 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
  - 5. changes in emissions would not qualify as a significant modification; and
  - 6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]

## 40 CFR PART 70 GENERAL CONDITIONS

- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
  2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
  3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
    - a. Report by June 30 to cover January through March
    - b. Report by September 30 to cover April through June
    - c. Report by December 31 to cover July through September
    - d. Report by March 31 to cover October through December
  4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]

## 40 CFR PART 70 GENERAL CONDITIONS

- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - 1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
  - 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
  - 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
  - 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
  - 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
  - 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

## **LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated August 10, 2007, along with supplemental information dated November 1, and December 18, 2007..
- IV. This permit shall become invalid, for the sources not constructed, if:
  - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
  - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.  
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
  - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
  - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
  - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
    - 1. Report by June 30 to cover January through March
    - 2. Report by September 30 to cover April through June
    - 3. Report by December 31 to cover July through September
    - 4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
  2. Cause of noncompliance;
  3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
  4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
  5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
  - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
  - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
  - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

## **LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS**

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services in accordance with LAC 33:I.Chapter 19.Facility Name and Ownership/Operator Changes Process.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
  2. Be less than the minimum emission rate (MER)
  3. Be scheduled daily, weekly, monthly, etc., or
  4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division  
La. Dept. of Environmental Quality  
Post Office Box 4302  
Baton Rouge, Louisiana 70821-4302

- XIX. For Part 70 sources, certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

General Information

AI ID: 5565 Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

Also Known As:	ID	Name	User Group	Start Date
	0180-00029	Williams Olefins LLC - Geismar Ethylene Plant	CDS Number	09-01-1999
	73-1562943	Federal Tax ID	Federal Tax ID	11-14-2000
LAD981149750	5565	Union Texas Petrochemicals Corp	Hazardous Waste Notification	12-16-1985
LA0069612	LAG670086	Union Texas Petrochemicals - Geismar Ethylene Plant	Inactive & Abandoned Sites	02-09-2000
WP1545		LPDES #	LPDES Permit #	05-22-2003
		LPDES #	LPDES Permit #	11-22-2006
		LWDPS #	LWDPS Permit #	06-25-2003
		Union Tex/Geismar PI	Multimedia	08-05-2002
GD-005-2017	17854	Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
	36542	Site ID #	Solid Waste Facility No.	02-01-2001
	80665	Williams Olefins LLC	TEMPO Merge	11-01-2000
70734NNTXSLAHWY		Williams Olefins LLC	TEMPO Merge	11-01-2000
		TRI #	TEMPO Merge	07-10-2001
			Toxic Release Inventory	07-09-2004
			Main Phone:	2256422100
			Physical Location:	5205 Hwy 3115 Geismar, LA 70734
			Mailing Address:	5205 Hwy 3115 Geismar, LA 70734
			Location of Front Gate:	30° 13' 55" latitude, 91° 3' 3" longitude, Coordinate Method: Interpolation - Map, Coordinate Datum: NAD27
			Related People:	
			Name	Mailing Address
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	Phone (Type)	Relationship
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	2256422114 (WP)	Emission Inventory Contact for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	DOUG.BADON@WI	Emission Inventory Contact for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	2256422114 (WP)	Solid Waste Billing Party for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	DOUG.BADON@WI	Solid Waste Billing Party for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	DOUG.BADON@WI	Accident Prevention Billing Party for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	2256422114 (WP)	Accident Prevention Billing Party for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	DOUG.BADON@WI	Water Billing Party for
Douglas Badon	Douglas Badon	PO Box 470 Geismar, LA 707340470	2256422114 (WP)	Water Billing Party for
Larry Bayer	Larry Bayer	PO Box 470 Geismar, LA 70734	2256422114 (WP)	Responsible Official for
Larry Bayer	Larry Bayer	PO Box 470 Geismar, LA 70734	2256422114 (WP)	Accident Prevention Contact for
Larry Bayer	Larry Bayer	PO Box 470 Geismar, LA 70734	larry.bayer@williams	Responsible Official for
Larry Bayer	Larry Bayer	PO Box 470 Geismar, LA 70734	larry.bayer@williams	Accident Prevention Contact for
J. G. Berret		5205 Hwy 3115 Geismar, LA 70734	2256422169 (WP)	Radiation Safety Officer for

General Information

AI ID: 5565 Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

Related People:	Name	Mailing Address	Phone (Type)	Relationship
	J. G. Berret	5205 Hwy 3115 Geismar, LA 70734	2252815805 (CP)	Radiation Safety Officer for
	J. G. Berret	5205 Hwy 3115 Geismar, LA 70734	2256422128 (WF)	Radiation Safety Officer for
	J. G. Berret	5205 Hwy 3115 Geismar, LA 70734	jake.berret@williams	Radiation Safety Officer for
Related Organizations:	Name	Address	Phone (Type)	Relationship
	Williams Olefins LLC	PO Box 470 Geismar, LA 70734	2256422100 (WP)	Air Billing Party for
	Williams Olefins LLC	PO Box 470 Geismar, LA 70734	2256422100 (WP)	Owns
	Williams Olefins LLC	PO Box 470 Geismar, LA 70734	2256422100 (WP)	Radiation License Billing Party for
	Williams Olefins LLC	PO Box 470 Geismar, LA 70734	2256422100 (WP)	Emission Inventory Billing Party

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

INVENTORIES

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER2007005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

## Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
<b>Geismar Ethylene Plant</b>						
ARE0002	63 - Converter Regeneration Vent					1080 hr/yr (All Year)
EQT0004	1 - Olefins Cracking Heater 100	130 MM BTU/hr				8760 hr/yr (All Year)
EQT0005	3 - Olefins Cracking Heater 99	130 MM BTU/hr				8760 hr/yr (All Year)
EQT0006	4 - Olefins Utility Boiler D	232 MM BTU/hr				8760 hr/yr (All Year)
EQT0007	5 - Olefins Cracking Heater 98	130 MM BTU/hr				8760 hr/yr (All Year)
EQT0008	6 - Olefins Cracking Heater 97	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0009	8 - Olefins Utility Boiler E	232 MM BTU/hr				8760 hr/yr (All Year)
EQT0010	33A - Olefins Cracking Heater 101	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0011	20 - Olefins Plant Flare	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0012	33B - Olefins Cracking Heater 102	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0013	34A - Olefins Cracking Heater 103	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0014	34B - Olefins Cracking Heater 104	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0015	35A - Olefins Cracking Heater 105	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0016	35B - Olefins Cracking Heater 106	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0017	36A - Olefins Cracking Heater 107	112 MM BTU/hr				8760 hr/yr (All Year)
EQT0018	36B - Olefins Cracking Heater 108	144 MM BTU/hr				8760 hr/yr (All Year)
EQT0019	41 - Olefins Cracking Heater 109	220 MM BTU/hr				8760 hr/yr (All Year)
EQT0021	45A - Olefins Utility Boiler A	220 MM BTU/hr				8760 hr/yr (All Year)
EQT0023	45B - Olefins Utility Boiler B					8760 hr/yr (All Year)
EQT0025	60 - Stormwater Lift Station					200 hr/yr (All Year)
EQT0026	61 - Firewater Pump # 3					200 hr/yr (All Year)
EQT0027	62 - Firewater Pump #5					200 hr/yr (All Year)
EQT0028	66 - Methanol Storage Tank	5000 gallons				8760 hr/yr (All Year)
EQT0029	67 - DAC Storage Tank (FB-802B)	35714 bbl				8760 hr/yr (All Year)
EQT0030	68 - Firewater Pump # 6		380 horsepower			200 hr/yr (All Year)
EQT0031	69 - Firewater Pump# 7		380 horsepower			200 hr/yr (All Year)
EQT0032	70 - Cooling Tower	20000 bbl	67000 gallons/min			8760 hr/yr (All Year)
EQT0033	80 - DAC Storage Tank (FB-802A)					100 hr/yr (All Year)
EQT0034	91 - Emergency Generator Engine			700 horsepower		100 hr/yr (All Year)
EQT0035	93 - Emergency Generator Engine			760 horsepower		100 hr/yr (All Year)
EQT0036	94 - Emergency Generator Engine			700 horsepower		100 hr/yr (All Year)
EQT0037	96 - Excess Effluent holding Tank (FB-812A)	238.0 bbl				8760 hr/yr (All Year)
EQT0038	97 - Wastewater/DAC Storage Tank (FB-812B)	238.0 bbl				8760 hr/yr (All Year)
EQT0039	98 - Biological Treatment Unit	64288 bbl				8760 hr/yr (All Year)
FUG0001	2 - Olefins Plant Fugitive Emissions					
Stack Information:		Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)
ID						
Geismar Ethylene Plant						

**INVENTORIES**

**AI ID: 55565 - Williams Olefins LLC - Geismar Ethylene Plant**  
**Activity Number: PER2007005**  
**Permit Number: 0180-00029-V8**  
**Air - Title V Regular Permit Renewal**

**Stack Information:**

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
<b>Geismar Ethylene Plant</b>							
ARE0002	63 - Converter Regeneration Vent			1		20	140
EQT0004	1 - Olefins Cracking Heater 100	30.5	37300	5.1		140	300
EQT0005	3 - Olefins Cracking Heater 99	30.5	37300	5.1		140	300
EQT0006	4 - Olefins Utility Boiler D	80	66600	4.67		100	300
EQT0007	5 - Olefins Cracking Heater 98	30.5	37300	5.1		140	300
EQT0008	6 - Olefins Cracking Heater 97	36.1	42500	5		140	330
EQT0009	8 - Olefins Utility Boiler E	80	66600	4.67		100	300
EQT0010	33A - Olefins Cracking Heater 101	50	42500	4.25		123	330
EQT0011	20 - Olefins Plant Flare	20	135000	12		24.5	1500
EQT0012	33B - Olefins Cracking Heater 102	50	42500	4.25		123	330
EQT0013	34A - Olefins Cracking Heater 103	50	42500	4.25		123	330
EQT0014	34B - Olefins Cracking Heater 104	50	42500	4.25		123	300
EQT0015	35A - Olefins Cracking Heater 105	50	42500	4.25		123	300
EQT0016	35B - Olefins Cracking Heater 106	50	42500	4.25		123	300
EQT0017	36A - Olefins Cracking Heater 107	56.3	37300	3.75		123	330
EQT0018	36B - Olefins Cracking Heater 108	56.3	37300	3.75		123	300
EQT0019	41 - Olefins Cracking Heater 109	50	42500	4.25		123	330
EQT0021	45A - Olefins Utility Boiler A	47.4	142800	8		101	400
EQT0023	45B - Olefins Utility Boiler B	47.4	142800	8		101	400
EQT0026	61 - Firewater Pump #3	80	1550	.6		20	800
EQT0027	62 - Firewater Pump #5	80	1550	.05		20	800
EQT0028	66 - Methanol Storage Tank					13.3	
EQT0029	67 - DAC Storage Tank (FB-802B)			90		35	
EQT0030	68 - Firewater Pump # 6	125	2100	.6		20	930
EQT0031	69 - Firewater Pump# 7	125	2100	.6		20	930
EQT0032	70 - Cooling Tower					65	100
EQT0033	80 - DAC Storage Tank (FB-802A)			67		32	
EQT0034	91 - Emergency Generator Engine	95	3100	.83		25	800
EQT0035	93 - Emergency Generator Engine	45	3100	1.2		25	800
EQT0036	94 - Emergency Generator Engine	95	3100	.83		25	800
EQT0037	96 - Excess Effluent holding Tank (FB-812A)			90		25	
EQT0038	97 - Wastewater/DAC Storage Tank (FB-812B)			90		25	
EQT0039	99 - Biological Treatment Unit			75		28	

**INVENTORIES**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER2007005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

## Relationships:

## Subject Item Groups:

ID	Group Type	Group Description
GRP0004	Equipment Group	CAP1 - Boilers (CAP 1)
GRP0005	Equipment Group	CAP2 - Cracking Heaters (CAP 2)
GRP0006	Equipment Group	GRP0006 - Alternative NOx Control Averaging Group
UNF0001	Unit or Facility Wide	Facility - Geismar Ethylene Plant

## Group Membership:

ID	Description	Member of Groups
EQT0006	4 - Olefins Utility Boiler D	GRP0000000004
EQT0007	5 - Olefins Cracking Heater 98	GRP0000000006
EQT0008	6 - Olefins Cracking Heater 97	GRP0000000006
EQT0009	8 - Olefins Utility Boiler E	GRP0000000004
EQT0010	33A - Olefins Cracking Heater 101	GRP0000000005, GRP0000000006
EQT0012	33B - Olefins Cracking Heater 102	GRP0000000005, GRP0000000006
EQT0013	34A - Olefins Cracking Heater 103	GRP0000000005, GRP0000000006
EQT0014	34B - Olefins Cracking Heater 104	GRP0000000005, GRP0000000006
EQT0015	35A - Olefins Cracking Heater 105	GRP0000000005, GRP0000000006
EQT0016	35B - Olefins Cracking Heater 106	GRP0000000005, GRP0000000006
EQT0017	36A - Olefins Cracking Heater 107	GRP0000000005, GRP0000000006
EQT0018	36B - Olefins Cracking Heater 108	GRP0000000005, GRP0000000006
EQT0019	41 - Olefins Cracking Heater 109	GRP0000000005
EQT0021	45A - Olefins Utility Boiler A	GRP0000000004
EQT0023	45B - Olefins Utility Boiler B	GRP0000000004

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

## Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multipplier	Units Of Measure
0635	Olefins and Aromatics N.E.C. (Rated Capacity)	1 300	MM Lb/Yr

## SIC Codes:

2869	Industrial organic chemicals, nec	Al5565
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**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-000029-V8

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
<b>Geismar Ethylene Plant</b>															
ARE 0002 63	0.08	0.10	0.04										0.34	0.38	0.18
EQT 0004 1	4.55	4.55	19.9	11.70	11.70	51.2	0.99	0.99	4.3	0.08	0.08	0.3	0.72	0.72	3.1
EQT 0005 3	4.55	4.55	19.9	11.70	11.70	51.2	0.99	0.99	4.2	0.08	0.08	0.3	0.72	0.72	3.1
EQT 0006 4		9.28			25.52			1.76			0.14		1.28		
EQT 0007 5	4.55	4.55	19.9	14.30	14.30	62.6	0.99	0.99	4.3	0.08	0.08	0.3	0.72	0.72	3.1
EQT 0008 6	5.04	5.04	22.1	12.24	12.24	53.6	1.09	1.09	4.8	0.09	0.09	0.4	0.79	0.79	3.5
EQT 0009 8		9.28			23.20			1.76			0.14		1.28		
EQT 0010 33A		5.04			12.53			1.09			0.09		0.79		
EQT 0011 20	25.71		112.6	4.73		20.7				34.55		151.3	3.73		16.36
EQT 0012 33B		5.04			12.53			1.09			0.09		0.79		
EQT 0013 34A		5.04			12.53			1.09			0.09		0.79		
EQT 0014 34B		5.04			12.53			1.09			0.09		0.79		
EQT 0015 35A		5.04			12.53			1.09			0.09		0.79		
EQT 0016 35B		5.04			12.53			1.09			0.09		0.79		
EQT 0017 36A		3.92			9.74			0.85			0.07		0.62		
EQT 0018 36B		3.92			9.74			0.85			0.07		0.62		
EQT 0019 41		5.04			12.96			1.09			0.09		0.79		
EQT 0021 45A		8.80			24.20			1.67			0.13		1.21		
EQT 0023 45B		8.80			24.20			1.67			0.13		1.21		
EQT 0025 60													0.19		0.85
EQT 0026 61	2.54	2.54	0.25	11.73	11.73	1.17	0.84	0.84	0.08	0.78	0.78	0.08	0.96	0.96	0.10
EQT 0027 62	2.54	2.54	0.25	11.73	11.73	1.17	0.84	0.84	0.08	0.78	0.78	0.08	0.96	0.96	0.10
EQT 0028 66													0.024		0.10

**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER2007005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC			
	Avg lb/hr	Max lb/hr	Tons/Year													
<b>Geismar Ethylene Plant</b>																
EQT 0029 <sup>67</sup>															0.27	1.20
EQT 0030 <sup>68</sup>	2.54	2.54	0.25	11.73	11.73	1.17	0.84	0.84	0.08	0.78	0.78	0.08	0.96	0.96	0.10	
EQT 0031 <sup>69</sup>	2.54	2.54	0.25	11.73	11.73	1.17	0.84	0.84	0.08	0.78	0.78	0.08	0.96	0.96	0.10	
EQT 0032 <sup>70</sup>							16.76	73.4					1.34	5.9		
EQT 0033 <sup>80</sup>													0.21		0.92	
EQT 0034 <sup>91</sup>	4.68	4.68	0.23	21.61	21.61	1.08	1.54	1.54	0.08	1.44	1.44	0.07	1.76	1.76	0.09	
EQT 0035 <sup>93</sup>	5.08	5.08	0.25	23.46	23.46	1.17	1.68	1.68	0.08	1.56	1.56	0.08	1.91	1.91	0.10	
EQT 0036 <sup>94</sup>	4.68	4.68	0.23	21.61	21.61	1.08	1.54	1.54	0.08	1.44	1.44	0.07	1.76	1.76	0.09	
EQT 0037 <sup>96</sup>													0.027		0.12	
EQT 0038 <sup>97</sup>													0.25		1.07	
EQT 0039 <sup>99</sup>													0.25		1.07	
FUG 0001 <sup>2</sup>													44.22		193.67	
GRP 0004 <sup>CAP1</sup>	21.00	92.00	57.76	253.00	253.00	3.99	17.5	0.32		1.4	2.89		12.7			
GRP 0005 <sup>CAP2</sup>	39.16		171.5	97.76			428.20	8.50		37.20	0.67		2.90	6.15	27.00	

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Tons/Year
EQT 0011 20	1,3-Butadiene	0.07	0.30
	Benzene	0.05	0.20
	Styrene	0.004	0.02
	Toluene	0.01	0.04
EQT 0025 60	Benzene	0.04	0.19
	Styrene	0.004	0.02
	Toluene	0.009	0.04
EQT 0028 66	Methanol	0.024	0.10
EQT 0029 67	1,3-Butadiene	0.04	0.16
	Benzene	0.07	0.31
	Toluene	0.003	0.01
EQT 0033 80	1,3-Butadiene	0.03	0.14
	Benzene	0.06	0.27
	Toluene	0.002	0.01
EQT 0037 96	Benzene	0.018	0.08
	Styrene	0.003	0.01
	Toluene	0.006	0.03
EQT 0038 97	1,3-Butadiene	0.04	0.15
	Benzene	0.07	0.30
	Toluene	0.003	0.01
EQT 0039 99	Benzene	0.09	0.39
	Styrene	0.03	0.13
	Toluene	0.04	0.16
FUG 0001 2	1,3-Butadiene	1.01	4.45
	Benzene	1.34	5.89
	Ethyl benzene	0.04	0.18
	Methanol	0.30	1.32
	Naphthalene	0.10	0.43
	Styrene	0.18	0.78
	Toluene	0.28	1.22
	Xylene (mixed isomers)	0.06	0.26
UNF 0001 Facility	1,3-Butadiene		5.20
	Benzene		7.63
	Ethyl benzene		0.18

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Tons/Year
UNF 0001 Facility	Methanol		1.42
	Naphthalene		0.43
	Styrene		0.96
	Toluene		1.52
	Xylene (mixed isomers)		0.26

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

**EQT0004 1: Olefins Cracking Heater 100**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate &lt;= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

Nitrogen oxides &lt;= 0.09 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average

Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.

Which Months: May-Sep Statistical Basis: None specified

Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC

33.III.2201.D or E. Include the information specified in LAC 33.III.2201.I.2.a through I.2.d.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33.III.2201.I.3 and I.4 as applicable.

**EQT0005 3: Olefins Cracking Heater 99**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate &lt;= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

Nitrogen oxides &lt;= 0.09 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average

Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.

Which Months: May-Sep Statistical Basis: None specified

Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC

33.III.2201.D or E. Include the information specified in LAC 33.III.2201.I.2.a through I.2.d.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33.III.2201.I.3 and I.4 as applicable.

**EQT0006 4: Olefins Utility Boiler D**

Nitrogen oxides < 0.20 lb/MMBTU (43 ng/J) heat input (expressed as NO<sub>2</sub>), except as provided in 40 CFR 60.44b(k). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db.

Which Months: All Year Statistical Basis: Thirty-day rolling average

13 [40 CFR 60.44b]

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER20070005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

**EQT0006 4: Olefins Utility Boiler D**

14 [40 CFR 60.49b(e)(4)]

To determine compliance with the emission limits for nitrogen oxides required under 60.44b, the owner or operator of an affected facility shall conduct performance test as required under 40 CFR 60.8 using the continuous system for monitoring NO<sub>x</sub> under 40 CFR 60.8, whichever date comes first, the owner or date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MM/BTU/hr) or less and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO<sub>x</sub> standards under 60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO<sub>x</sub> emissions data collected pursuant to 40 CFR 60.49b(g)(1) or 40 CFR 60.49b(g)(2) are used to calculate a 30 -day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO<sub>x</sub> emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 stream generating unit operating days. [40 CFR 60.49b(e)(4)]

15 [40 CFR 60.49b(g)(2)]

Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 60.49b(c). [40 CFR 60.49b(g)(2)]

16 [40 CFR 60.49b(d)]  
 Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period.

Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(7) for each steam generating unit operating day. Subpart Db. [40 CFR 60.49b(g)(2)]

Submit excess emissions report. Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]  
 Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]  
 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lanceing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

Nitrogen oxides < 0.1125 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average

Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.

Which Months: May-Sep Statistical Basis: None specified

Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33.III.2201.D or E. Include the information specified in LAC 33.III.2201.I.2.a through I.2.d.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33.III.2201.I.3 and I.4 as applicable.

**EQT0007 5: Olefins Cracking Heater 98**

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

**EQT0007 5: Olefins Cracking Heater 98**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

26 [LAC 33:III.1101.B]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0008 6: Olefins Cracking Heater 97**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

27 [LAC 33:III.1313.C]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0009 8: Olefins Utility Boiler E**

Nitrogen oxides <= 0.20 lb/MMBTU (43 ng/J) heat input (expressed as NO<sub>2</sub>), except as provided in 40 CFR 60.44b(k). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db.

Which Months: All Year Statistical Basis: Thirty-day rolling average  
 To determine compliance with the emission limits for nitrogen oxides required under 60.44b, the owner or operator of an affected facility shall conduct performance test as required under 40 CFR 60.8 using the continuous system for monitoring NO<sub>x</sub> under 40 CFR 60.48b. Following the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whenever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MM/BTU/hr) or less and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO<sub>x</sub> standards under 60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO<sub>x</sub> emissions data collected pursuant to 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2) are used to calculate a 30 -day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO<sub>x</sub> emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 stream generating unit operating days. [40 CFR 60.46b(e)(4)]

Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 60.49b(c). [40 CFR 60.48b(g)(2)]

Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual

capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period.

Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]

**EQT0007 5: Olefins Cracking Heater 98**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

28 [LAC 33:III.1101.B]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

29 [LAC 33:III.1313.C]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0008 6: Olefins Cracking Heater 97**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

30 [40 CFR 60.44b]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

31 [40 CFR 60.46b(e)(4)]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

32 [40 CFR 60.48b(g)(2)]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

33 [40 CFR 60.49b(d)]

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**SPECIFIC REQUIREMENTS**

**All ID:** 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
**Activity Number:** PER20070005  
**Permit Number:** 0180-00029-V8  
**Air - Title V Regular Permit Renewal**

**EQT0009 8: Olefins Utility Boiler E**

- 34 [40 CFR 60.49b(g)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(7) for each steam generating unit operating day. Subpart Db. [40 CFR 60.49b(g)]  
 Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]
- 35 [40 CFR 60.49b(h)] Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]
- 36 [40 CFR 60.49b(q)] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- 37 [LAC 33:III.1101.B]

Which Months: All Year Statistical Basis: None specified  
 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified  
 Nitrogen oxides <= 0.1125 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average  
 Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.

Which Months: May-Sep Statistical Basis: None specified  
 Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.  
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33:III.2201.I.3 and I.4 as applicable.

**EQT0010 33A: Olefins Cracking Heater 101**

- 38 [LAC 33:III.1313.C] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: None specified

**EQT0011 20: Olefins Plant Flare**

- 43 [LAC 33:III.1101.B] Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.  
 Which Months: All Year Statistical Basis: None specified  
 Submit notification: Due to SPOC as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.
- 44 [LAC 33:III.1313.C]

**EQT0012 33B: Olefins Cracking Heater 102**

**SPECIFIC REQUIREMENTS**

All ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER20070005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

**EQT0012 33B: Olefins Cracking Heater 102**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

**EQT0013 34A: Olefins Cracking Heater 103**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0014 34B: Olefins Cracking Heater 104**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0015 35A: Olefins Cracking Heater 105**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0016 35B: Olefins Cracking Heater 106**

**SPECIFIC REQUIREMENTS**

All ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER20070005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

**EQT0016 35B: Olefins Cracking Heater 106**

55 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0017 36A: Olefins Cracking Heater 107**

57 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0018 36B: Olefins Cracking Heater 108**

59 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

**EQT0019 41: Olefins Cracking Heater 109**

61 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified

Nitrogen oxides <= 0.09 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average

Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.

Which Months: May-Sep Statistical Basis: None specified

Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.I.2.d. 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-V8

Air - Title V Regular Permit Renewal

**EQT0019 41: Olefins Cracking Heater 109**

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33:III.2201.I.3 and I.4 as applicable.

**EQT0021 45A: Olefins Utility Boiler A**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified  
 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: None specified  
 Nitrogen oxides < 0.1125 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average  
 Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.  
 Which Months: May-Sep Statistical Basis: None specified

Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.  
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33:III.2201.I.3 and I.4 as applicable.

**EQT0023 45B: Olefins Utility Boiler B**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified  
 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: None specified  
 Nitrogen oxides < 0.1125 lb/MMBTU.

Which Months: May-Sep Statistical Basis: Thirty-day rolling average  
 Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.  
 Which Months: May-Sep Statistical Basis: None specified

Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.  
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33:III.2201.I.3 and I.4 as applicable.

**EQT0026 61: Firewater Pump No. 3**

**SPECIFIC REQUIREMENTS**

All ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER20070005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

**EQT0026 61: Firewater Pump No. 3**

- 79 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lanceing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: Six-minute average
- 80 [LAC 33:III.1311.C]

**EQT0027 62: Firewater Pump No. 5**

- 81 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lanceing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: Six-minute average
- 82 [LAC 33:III.1311.C]

**EQT0028 66: Methanol Storage Tank**

- 83 [LAC 33:III.2103.A] Equip with a submerged fill pipe.

**EQT0029 67: DAC Storage Tank (FB-802B)**

- 84 [40 CFR 60.112b(a)(2)(ii)]

Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, equip each opening in the roof with a gasketed cover, seal, or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Close automatic bleeder vents at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Set rim vents to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Equip automatic bleeder vents and rim space vents with gaskets. Provide each emergency roof drain with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. Subpart Kb. [40 CFR 60.112b(a)(2)(ii)]

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant  
 Activity Number: PER20070005  
 Permit Number: 0180-00029-V8  
 Air - Title V Regular Permit Renewal

**EQT0029 67: DAC Storage Tank (FB-802B)**

- 85 [40 CFR 60.112b(a)(2)] Equip with an external floating roof consisting of a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Equip with a closure device between the wall of the storage vessel and the roof edge. The closure device consists of two seals, secondary above the primary. The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 40 CFR 60.113b(b)(4), the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 CFR 60.113b(b)(4). The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Subpart Kb. [40 CFR 60.112b(a)(2)]
- 86 [40 CFR 60.113b(b)(1)(i)] Seal gap area & width monitored by measurement at the regulation's specified frequency. Using the procedures in 40 CFR 60.113b(b)(2) determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter. Subpart Kb. [40 CFR 60.113b(b)(1)(i)]
- 87 [40 CFR 60.113b(b)(1)(ii)] Which Months: All Year Statistical Basis: None specified Seal gap area & width monitored by measurement at the regulation's specified frequency. Using the procedures in 40 CFR 60.113b(b)(2) determine the gap areas and maximum gap widths between the secondary seal and the wall of the storage vessel within 60 days of the initial fill with VOL and at least once per year thereafter. Subpart Kb. [40 CFR 60.113b(b)(1)(ii)]
- 88 [40 CFR 60.113b(b)(3)] Which Months: All Year Statistical Basis: None specified Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in 40 CFR 60.113b(b)(4)(i)(A)]
- 89 [40 CFR 60.113b(b)(4)(i)(A)] One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface. Subpart Kb. [40 CFR 60.113b(b)(4)(i)(A)]
- 90 [40 CFR 60.113b(b)(4)(i)(B)] There are to be no holes, tears, or other openings in the shoe, primary seal fabric, or seal envelope. Subpart Kb. [40 CFR 60.113b(b)(4)(i)(B)]
- 91 [40 CFR 60.113b(b)(4)(i)] Seal gap area  $\leq 2.12 \text{ cm}^2/\text{m}$  of tank diameter (accumulated area) for gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)]
- 92 [40 CFR 60.113b(b)(4)(i)] Which Months: All Year Statistical Basis: None specified Seal gap width  $\leq 3.81 \text{ cm}$  for the width of any portion of any gap between the tank wall and the mechanical shoe or liquid-mounted primary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)]
- 93 [40 CFR 60.113b(b)(4)(ii)(A)] Which Months: All Year Statistical Basis: None specified Install the secondary seal above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in 60.113b(b)(2)(iii). Subpart Kb. [40 CFR 60.113b(b)(4)(ii)(A)]
- 94 [40 CFR 60.113b(b)(4)(ii)(B)] Seal gap area  $\leq 21.2 \text{ cm}^2/\text{m}$  of tank diameter (accumulated area) for gaps between the tank wall and the secondary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(ii)(B)]
- 95 [40 CFR 60.113b(b)(4)(ii)(B)] Which Months: All Year Statistical Basis: None specified Seal gap width  $\leq 1.27 \text{ cm}$  for the width of any portion of any gap between the tank wall and the secondary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(ii)(B)]
- 96 [40 CFR 60.113b(b)(4)(ii)(C)] Which Months: All Year Statistical Basis: None specified There are to be no holes, tears, or other openings in the secondary seal or seal fabric. Subpart Kb. [40 CFR 60.113b(b)(4)(ii)(C)]

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

Permit Number: 0180-00029-VB

Air - Title V Regular Permit Renewal

**EQT0029 67: DAC Storage Tank (FB-802B)**

- 97 [40 CFR 60.113b(b)(4)] Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4) (i) and (ii) except as specified in 40 CFR 60.113b(b)(4)(iii). Subpart Kb. [40 CFR 60.113b(b)(4)]
- 98 [40 CFR 60.113b(b)(5)] Submit notification: Due at least 30 days in advance of any gap measurements required by 40 CFR 60.113b(b)(1) to afford DEQ the opportunity to have an observer present. Subpart Kb. [40 CFR 60.113b(b)(5)]
- 99 [40 CFR 60.113b(b)(6)(i)] If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL. Subpart Kb. [40 CFR 60.113b(b)(6)(i)]
- 100 [40 CFR 60.113b(b)(6)(ii)] Submit notification in writing: Due at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(b)(6) to afford DEQ an opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph 40 CFR 60.113b(b)(6) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, notify DEQ at least 7 days prior to the refilling of the storage vessel. Notify by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, submit notification in writing, including the written documentation and send by express mail so that it is received by DEQ at least 7 days prior to the refilling. Subpart Kb. [40 CFR 60.113b(b)(6)(ii)]
- 101 [40 CFR 60.113b(b)(6)] Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the external floating roof, the primary seal, the secondary seal, and fittings each time the storage vessel is emptied and degassed. Subpart Kb. [40 CFR 60.113b(b)(6)]
- 102 [40 CFR 60.115b(b)(2)] Which Months: All Year Statistical Basis: None specified Submit a report: Due to DEQ within 60 days of performing the seal gap measurements required by 40 CFR 60.113b(b)(1). The report shall contain: 1) the date of measurement, 2) the raw data obtained in the measurement, 3) the calculations described in 40 CFR 60.113b(b)(2) and (b)(3). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(b)(2)]
- 103 [40 CFR 60.115b(b)(3)] Gap measurement(s) recordkeeping by electronic or hard copy upon each occurrence of gap measurement performance, as required by 40 CFR 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain: 1) the date of measurement, 2) the raw data obtained in the measurement, 3) the calculations described in 40 CFR 60.113b(b)(2) and (b)(3). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115b(b)(3)]
- 104 [40 CFR 60.115b(b)(4)] Submit a report: Due to DEQ within 30 days after each seal gap measurement that detects gaps exceeding the limitations specified by 40 CFR 60.113b(b)(4). The report will identify the vessel and contain the information specified in 40 CFR 60.115b(b)(2) and the date the vessel was emptied or the repairs made and date of repair. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(b)(4)]
- 105 [40 CFR 60.116b(b)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 106 [40 CFR 60.116b(c)] VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]
- 107 [LAC 33:III.2103.A] Equip with a submerged fill pipe.

**EQT0030 68: Firewater Pump No. 6**

**SPECIFIC REQUIREMENTS**

AI ID: 5565 - Williams Olefins LLC - Geismar Ethylene Plant

Activity Number: PER20070005

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**EQT0030 68: Firewater Pump No. 6**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: Six-minute average

**EQT0031 69: Firewater Pump No. 7**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: Six-minute average

**EQT0033 80: DAC Storage Tank (FB-802A)**

Tank shall be equipped with an external floating roof in accordance with the provisions of LAC 33:III.2103.D.

Records of inspections required by LAC 33:III.2103.D.2.e and D.4 shall be retained for two years.

**EQT0034 91: Emergency Generator Engine**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: Six-minute average

**EQT0035 93: Emergency Generator Engine**

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

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**EQT0035 93: Emergency Generator Engine**

117 [LAC 33:III.1311.C]

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: Six-minute average

**EQT0036 94: Emergency Generator Engine**

118 [LAC 33:III.1101.B]

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

119 [LAC 33:III.1311.C]

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: Six-minute average

**EQT0038 97: Wastewater/DAC Storage Tank (FB-812B)**

120 [40 CFR 60.1126(a)(2)(iii)]

Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, equip each opening in the roof with a gasketed cover, seal, or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Close automatic bleeder vents at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip automatic bleeder vents and rim space vents with gaskets. Provide each emergency roof drain with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. Subpart Kb. [40 CFR 60.1126(a)(2)(ii)]

121 [40 CFR 60.1126(a)(2)]

Equip with an external floating roof consisting of a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Equip with a closure device between the wall of the storage vessel and the roof edge. The closure device consists of two seals, secondary above the primary. The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 40 CFR 60.113(b)(4), the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 CFR 60.113(b)(4). The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Subpart Kb. [40 CFR 60.1126(a)(2)]

Seal gap area & width monitored by measurement at the regulation's specified frequency. Using the procedures in 40 CFR 60.113(b)(2) determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter. Subpart Kb. [40 CFR 60.113(b)(1)(ii)]  
 Which Months: All Year Statistical Basis: None specified

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**EQT0038 97: Wastewater/DAC Storage Tank (FB-812B)**

- 123 [40 CFR 60.113b(b)(1)(ii)] Seal gap area & width monitored by measurement at the regulation's specified frequency. Using the procedures in 40 CFR 60.113b(b)(2) determine the gap areas and maximum gap widths between the secondary seal and the wall of the storage vessel within 60 days of the initial fill with VOL and at least once per year thereafter. Subpart Kb. [40 CFR 60.113b(b)(1)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 124 [40 CFR 60.113b(b)(3)] Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in 40 CFR 60.113b(b)(4). Subpart Kb. [40 CFR 60.113b(b)(3)]
- One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface. Subpart Kb. [40 CFR 60.113b(b)(4)(i)(A)]
- There are to be no holes, tears, or other openings in the shoe, primary seal fabric, or seal envelope. Subpart Kb. [40 CFR 60.113b(b)(4)(i)(B)]
- 125 [40 CFR 60.113b(b)(4)(i)(A)] Seal gap area <= 212 cm<sup>2</sup>/m of tank diameter (accumulated area) for gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)]
- 126 [40 CFR 60.113b(b)(4)(i)(B)] Which Months: All Year Statistical Basis: None specified
- Seal gap width <= 3.81 cm for the width of any portion of any gap between the tank wall and the mechanical shoe or liquid-mounted primary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)]
- 127 [40 CFR 60.113b(b)(4)(i)] Which Months: All Year Statistical Basis: None specified
- Install the secondary seal above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in 60.113b(b)(2)(iii). Subpart Kb. [40 CFR 60.113b(b)(4)(ii)(A)]
- 128 [40 CFR 60.113b(b)(4)(i)] Seal gap area <= 211.2 cm<sup>2</sup>/m of tank diameter (accumulated area) for gaps between the tank wall and the secondary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)]
- 129 [40 CFR 60.113b(b)(4)(i)(A)] Which Months: All Year Statistical Basis: None specified
- Seal gap width <= 1.27 cm for the width of any portion of any gap between the tank wall and the secondary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)(B)]
- 130 [40 CFR 60.113b(b)(4)(i)(B)] Which Months: All Year Statistical Basis: None specified
- Seal gap width <= 1.27 cm for the width of any portion of any gap between the tank wall and the secondary seal. Subpart Kb. [40 CFR 60.113b(b)(4)(i)(B)]
- 131 [40 CFR 60.113b(b)(4)(i)(B)] Which Months: All Year Statistical Basis: None specified
- There are to be no holes, tears, or other openings in the secondary seal or seal fabric. Subpart Kb. [40 CFR 60.113b(b)(4)(ii)(C)]
- 132 [40 CFR 60.113b(b)(4)(i)(C)] Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4) (i) and (ii) except as specified in 40 CFR 60.113b(b)(4)(iii). Subpart Kb. [40 CFR 60.113b(b)(4)]
- 133 [40 CFR 60.113b(b)(4)] Submit notification: Due at least 30 days in advance of any gap measurements required by 40 CFR 60.113b(b)(1) to afford DEQ the opportunity to have an observer present. Subpart Kb. [40 CFR 60.113b(b)(5)]
- If the external floating roof has defecits, the primary seal has holes, tears, or other openings in the seal or the seal fabric, repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL. Subpart Kb. [40 CFR 60.113b(b)(6)(i)]
- 134 [40 CFR 60.113b(b)(5)] Submit notification in writing: Due at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(b)(6) to afford DEQ an opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph 40 CFR 60.113b(b)(6) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, notify DEQ at least 7 days prior to the refilling of the storage vessel. Notify by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, submit notification in writing including the written documentation and send by express mail so that it is received by DEQ at least 7 days prior to the refilling. Subpart Kb. [40 CFR 60.113b(b)(6)(ii)]

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**EQT0038 97: Wastewater/DAC Storage Tank (FB-812B)**

- Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the external floating roof, the primary seal, the secondary seal, and fittings each time the storage vessel is emptied and degassed. Subpart Kb. [40 CFR 60.113(b)(6)]
- Which Months: All Year Statistical Basis: None specified
- Submit a report. Due to DEQ within 60 days of performing the seal gap measurement required by 40 CFR 60.113(b)(1). The report shall contain: 1) the date of measurement, 2) the raw data obtained in the measurement, 3) the calculations described in 40 CFR 60.113(b)(2) and (b)(3). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115(b)(2)]
- Gap measurement(s) recordkeeping by electronic or hard copy upon each occurrence of gap measurement performance, as required by 40 CFR 60.113(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain: 1) the date of measurement, 2) the raw data obtained in the measurement, 3) the calculations described in 40 CFR 60.113(b)(2) and (b)(3). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115(b)(3)]
- Submit a report. Due to DEQ within 30 days after each seal gap measurement that detects gaps exceeding the limitations specified by 40 CFR 60.113(b)(4). The report will identify the vessel and contain the information specified in 40 CFR 60.115(b)(2) and the date the vessel was emptied or the repairs made and date of repair. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115(b)(4)]
- Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116(f)(a). Subpart Kb. [40 CFR 60.116(b)(1)]
- VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116(b)(c)]
- Equip with a submerged fill pipe.

**FUG0001 2: Olefins Plant Fugitive Emissions**

- Equipment/operational data recordkeeping by logbook at the approved frequency. Record and keep the specified information in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d). Subpart VV. [40 CFR 60.486(i)]
- Maintain records as specified in 40 CFR 61.246(i). Subpart J.
- Equipment/operational data recordkeeping by logbook at the regulation's specified frequency. Record an analysis demonstrating the design capacity of the process unit, and an analysis demonstrating that the equipment is not in VHAP service. Keep records in a readily accessible location for use in determining exemptions as provided in 40 CFR 61.240. Subpart V. [40 CFR 61.246(i)]
- Fugitive emission piping components may be added to or removed from the permitted facility without triggering the need to apply for a permit modification provided all of the following are adhered to:
- a)Changes in components involve routine maintenance or are undertaken to address safety concerns, or involve small piping revisions with no associated emissions increase except from the fugitive emission components themselves;
  - b)Changes do not involve any associated increase in production rate or capacity, or tie in of new or modified process equipment other than the piping components;
  - c)Actual emissions following the changes will be insignificant activities and will not exceed the emission limits contained in the permit;
  - d)The components are promptly incorporated into any applicable leak detection and repair program.

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**GRP0004 Boilers (CAP 1)**

Group Members: EQT0006 EQT0009 EQT0021 EQT0023

148 [LAC 33:III.501.C.6]

This permit is issued under the following condition:

The permittee shall comply with all applicable federally enforceable requirements listed in the attached tables. Failure to comply with any of the federal applicable requirements or compliance monitoring devices, activities, or methods listed in Tables 1, 2,3, 4, and 5 will represent a violation of this permit.

To maintain NOx emission increases from prior facility modifications below the significance level of 40 tons/year, total heat input to Boilers A,B,D, and E, Emission Points 45A, 45B, 4, and 8, shall be limited to no more than 4,600 billion BTU/yr.

The total heat input to these boilers shall be recorded each month, as well as the total heat input to these boilers for the last twelve months. These records shall be kept on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. Heat input above the maximum listed in this specific condition for any twelve consecutive month period shall be a violation of the permit and must be reported to the Office of Environmental Compliance, Enforcement Division. A report showing the monthly heat input to the boilers and heaters and the 12-month totals which end in the preceding six month calendar period shall be submitted to the Office of Environmental Compliance, Enforcement Division semiannually in accordance with Part 70 General Conditions.

**GRP0005 Cracking Heaters (CAP 2)**

Group Members: EQT0010 EQT0012 EQT0013 EQT0014 EQT0015 EQT0016 EQT0017 EQT0018 EQT0019

149 [LAC 33:III.1101.B]

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lanceing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified  
 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).  
 Which Months: All Year Statistical Basis: None specified  
 This permit is issued under the following condition:

The permittee shall comply with all applicable federally enforceable requirements listed in the attached tables. Failure to comply with any of the federal applicable requirements or compliance monitoring devices, activities, or methods listed in Tables 1, 2,3, 4, and 5 will represent a violation of this permit.

To maintain NOx emission increases from prior facility modifications below the significance level of 40 tons/year, total heat input to nine cracking heaters, Emission Points 33A, 33B, 34A, 34B, 35A, 35B, 36A, 36B, and 41,, shall be limited to no more than 9,800 billion BTU/yr.

The total heat input to these heaters shall be recorded each month, as well as the total heat input to these heaters for the last twelve months. These records shall be kept on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. Heat input above the maximum listed in this specific condition for any twelve consecutive month period shall be a violation of the permit and must be reported to the Office of Environmental Compliance, Enforcement Division. A report showing the monthly heat input to the heaters and the 12-month totals which end in the preceding six month calendar period shall be submitted to the Office of Environmental Compliance, Enforcement Division semiannually in accordance with Part 70 General Conditions.

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**GRP0006 Alternative NOx Control Averaging Group**

Group Members: EQT0007 EQT0008 EQT0010 EQT0012 EQT0013 EQT0014 EQT0015 EQT0016 EQT0017 EQT0018

152 [LAC 33:III.2201.H.2.a.i]

Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter.  
 Which Months: May-Sep Statistical Basis: None specified  
 Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC

33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33:III.2201.I.3 and I.4, as applicable.

This permit is issued with the following condition:

Permittee shall comply with LAC 33:III.2201 in accordance with the NOx Control Plan submitted on April 20, 2005 and any subsequent revisions approved by the Department of Environmental Quality. Implementation of the approved Plan includes the following elements:

- Permittee shall utilize an Alternative Averaging Plan for a group of ten cracking heaters consisting of Emission Points 5,6,33A,33B,34A,4B,35A,35B,36A, and 36B. The averaging group NOx emission factor shall be limited to no more than 0.09 pounds NOx/million BTU on a 30-day rolling average basis.
- Permittee shall calculate and record the averaging group NOx emission factor each month by use of Equation E-3. Records of these monthly determinations shall be kept on site and available for inspection by the Office of Environmental Compliance, Surveillance Division.
- Permittee may utilize a single totalizing fuel meter to continuously measure fuel usage to a group of nine similar cracking heaters, BA-101 through BA-109.

d. Permittee shall utilize a test method that confirms to ASTM Method D1945-96 to measure the Hydrogen content of the plant fuel gas at concentrations that are greater than the nominal range listed in this method.

**UNF0001 Geismar Ethylene Plant**

156 [40 CFR 60.]

157 [40 CFR 61.]

158 [40 CFR 70.5(a)(1)(iii)]

159 [40 CFR 70.6(a)(3)(iii)(A)]

All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.

All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A.

Submit Title V permit application for renewal: Due 6 months before permit expiration date. [40 CFR 70.5(a)(1)(iii)]

Submit Title V monitoring results report: Due semiannually, by March 31st and September 30th for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]

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**UNF0001 Geismar Ethylene Plant**

- 160 [40 CFR 70.6(a)(3)(iii)(B)] Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. [40 CFR 70.6(a)(3)(iii)(B)]
- 161 [40 CFR 70.6(c)(5)(iv)] Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]
- 162 [40 CFR 82. Subpart F] Comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B.
- 163 [LAC 33:III.1103] Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111
- 164 [LAC 33:III.1109.B] Outdoor burning of waste material or other combustible material 1 is prohibited.
- 165 [LAC 33:III.1303.B] Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.
- 166 [LAC 33:III.2113.A] Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5.
- 167 [LAC 33:III.219] Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
- 168 [LAC 33:III.501.C.6] Maintain best practical housekeeping and maintenance practices at the highest possible standards to control emissions of highly reactive volatile organic compounds (HRVOC), which include Ethylene and Propylene. (State Only).
- 169 [LAC 33:III.5105.A.1] Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III. Chapter 51. Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III. Chapter 51. Subchapter A, after the effective date of the standard.
- 170 [LAC 33:III.5105.A.3] Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard.
- 171 [LAC 33:III.5105.A.4] Do not fail to keep records, notify, report or revise reports as required under LAC 33:III. Chapter 51. Subchapter A.
- 172 [LAC 33:III.5113.B.1] Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel.
- 173 [LAC 33:III.5113.B.3] Provide necessary sampling and testing facilities, exclusive of instruments and sensing devices, as needed to properly determine the emission of toxic air pollutants, upon request of the department.
- 174 [LAC 33:III.5113.B.4] Provide emission testing facilities as specified in LAC 33:III.5113.B.4 through e.
- 175 [LAC 33:III.5113.B.5] Analyze samples and determine emissions within 30 days after each emission test has been completed.
- 176 [LAC 33:III.5113.B.5] Submit certified letter: Due to the Office of Environmental Assessment before the close of business on the 45th day following the completion of the emission test. Report the determinations of the emission test.

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**UNF0001 Geismar Ethylene Plant**

- 177 [LAC 33:III.511.3.B.6] Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ.
- 178 [LAC 33:III.511.3.B.7] Submit notification: Due to the Office of Environmental Assessment at least 30 days before the emission test. Submit notification of emission test to allow DEQ the opportunity to have an observer present during the test.
- 179 [LAC 33:III.5609.A.3.b] Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 7 when the administrative authority declares an Air Pollution Emergency.
- 180 [LAC 33:III.5609.A] Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency.
- 181 [LAC 33:III.5901.A] Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7. Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901.
- 182 [LAC 33:III.5907] Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur.
- 183 [LAC 33:III.919.D] Submit Emission Inventory (EI) Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.